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ABSTRACT

Research on individual's response to emergency situations in the presence of others has produced conflicting results. The bystander effect is the label applied to inaction or the unlikelihood of assistance with others present. The social facilitation effect occurs when the presence of others energizes response; strong habit responses are facilitated by an audience, weak habit responses are inhibited by an audience (bystander effect). To account for both the action and inaction of individuals in an emergency, the effects on helping behavior of habit strength and the presence of an audience were evaluated. Registered nurses (N=28), assumed to have strong helping response habits, and 28 female, general education students were each asked to draw a figure to specifications. For half the subjects the drawings were completed in the presence of a confederate who evaluated the drawings and requested the subject to redraw the figure. Following the drawing task, the emergency (sound of a workman's pre-recorded fall) took place. Response times from the beginning of the recording until the subject opened (or not) the laboratory door, were recorded. Overall, 64 percent of the sample responded to the emergency within 180 seconds. Significantly more general education students (71 percent) offered aid when they were alone than in the presence of another student (36 percent). Nurses' responses were not adversely affected by the audience. When alone, nurses and general students offered help equally. (MCF)

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Social Facilitation of Aiding Responses

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Extensive research has been conducted examining the inaction of individuals in emergency situations. The results of these studies consistently demonstrate that people are less likely to offer assistance to someone if others are present than if they are alone. Latane and Darley have referred to this phenomenon as the bystander effect. Several explanations for this suppression of the helping response have been offered. The most commonly cited are diffusion of responsibility, social loafing, and audience inhibition. Although considerable evidence exists for the bystander effect, Pantin and Carver recently reported a virtual elimination of this phenomenon in subjects who viewed films on first aid prior to the emergency. In short, help was offered quickly by those subjects who viewed the films regardless of the presence or absence of bystanders. In fact, there was a slight, albeit nonsignificant, reversal of the typical bystander effect such that among subjects who saw the films there was a tendency for subjects in the audience condition to respond faster than subjects in the alone condition.

Research in social psychology also indicates that sometimes the presence of others facilitates individual performance. This social facilitation effect has been most parsimoniously explained by Robert Zajonc. Using general behavior theory Zajonc suggests that performance on easily mastered tasks are facilitated by the presence of others, whereas performance on difficult tasks are impaired by the presence of others. According to Zajonc, the

presence of others has the effect of energizing all responses in a person's response-habit hierarchy. Responses that are dominant, that is, responses that are high on the hierarchy, benefit the most from the audience's energization. Hence, tasks requiring the dominant response will be facilitated, whereas tasks requiring a response which is low in the subject's habit hierarchy suffer from impaired performance. Despite considerable evidence for Zajonc's general theory, the exact role played by the presence of others has not, to date, been adequately established. While Zajonc proposes that the audience's mere presence is sufficient to energize the performer's response tendencies, others have proposed that the audience must have an evaluative component in order to energize the performer's habits.

Social facilitation research indicates that the prediction of individual performance requires knowledge about both the performer's abilities and the task at hand. It was the purpose of the present study to account for both the action and inaction of individuals in an emergency situation by predicting a bi-directional effect in accordance with Zajonc's social facilitation theory. The effect of an evaluative audience on the performance of helping behavior was expected to be dependent upon the habit strength of the individual's helping response. For example, if helping is high on an individual's habit hierarchy, the presence of another would be expected to produce more frequent and/or swifter helping than would occur without an audience. Conversely, if helping is low on an individual's habit hierarchy, the presence of an audience would be expected to produce less frequent and/or slower helping than would

occur without the audience. This result occurs because responses high in the habit hierarchy are energized by the audience and these responses then compete with responses low in the hierarchy. The latter expectation, of course, is the frequently observed bystander effect. In the present study a group of nurses and a group of general students were recruited to test the above hypotheses. Because nurses are frequently involved in helping situations due to the nature of their occupation, we assumed that they would have a learned helping response positioned higher in their habit hierarchies than the general students.

Method

Subjects

The subjects were 56 female University students. One half of the subjects were recruited from courses offered in the University's general education program, while the remaining subjects were Registered Nurses recruited from the University's nursing program.

Design

The experimental design can be described as a 2 x 2 completely randomized factorial. The first independent variable was the presence or absence of an evaluative audience when the emergency took place. The second independent variable was the helping response habit strength of the subject (high vs. low). In the present study the nurses were assumed to have helping responses higher in their habit hierarchies than the general students.

Procedure

When the subject arrived at the laboratory she was met by the experimenter. For one half of the subjects an experimental confederate,

posing as another student, was present. As the subject entered the laboratory she passed through a short hallway where a workman was standing on a ladder repairing the ceiling lights. As the experimenter and the subject passed the workman the experimenter said, "Please excuse the mess; there is a man working on the lights." A bright orange safety cone and electrical wire were placed on the floor requiring the experimenter and the subject to walk carefully around the worksite. Once inside the laboratory the subject was asked to sit in a chair placed before an easel. The chair was exactly 151.13 cm from the door knob. Mounted to the easel was a pad of sketching paper and a master sheet displaying 10 geometrical figures. The subject was told that the experiment involved the study of perception and she was asked to draw each figure on the paper to the dimension specified on the master sheet. For one half of the subjects the drawing task was completed in the presence of an evaluative audience. This audience was comprised of an experimental confederate who was presented to the subject as another student. The confederate's role was to evaluate the subject's drawings by measuring them with a ruler. If the drawings did not match the specified dimensions, the evaluator could ask the subject to redraw the figure. According to a preplanned script, the evaluator always returned figures 1 and 5 to the subject to redraw. After completing the instructions the experimenter left the room and closed the door behind her. Three minutes after the drawing task began the emergency took place. A prerecorded tape was played while the ladder, several books, and a metal waste basket were tipped over by the experimenter. The workman's prerecorded fall and subsequent

moans lasted approximately 15 s. A 1/100 stop clock connected to the laboratory door was initiated by the experimenter when the workman made his first verbal comments at the beginning of the taped emergency. The stop clock was stopped automatically when the subject opened the door or after 180 s had elapsed.

After the emergency had taken place and the subject had either responded or not, the subject was assured by the experimenter that no emergency had taken place and that the workman was, indeed, unharmed. An extensive debriefing followed where the rationale for the experiment was given, the reasons for the deception discussed, and questions answered. The subject then completed a short questionnaire to assess her attitudes and feelings about the emergency in particular, and the experiment in general.

Results and Discussion

The hypotheses were evaluated using 2 dependent variables: helping frequency and response latency. Subjects responding within the allotted 180 s were defined as helpers, whereas subjects not responding within the 180 s were defined as nonhelpers. Response latency scores ranged from 3.42 s to 180 s. The a priori hypotheses were evaluated using a Type I error rate of 5%.

Overall, 64% of the sample responded to the emergency within 180 s. The pattern of helping for the general students provided further support for the bystander effect: significantly more students offer aid when they were alone than when they were in the presence of another student (71% vs. 36%), $\text{CHI}^2(1) = 3.58, p < .06$. The nurses' response to the emergency, however, was not adversely effected by the presence of another student. That is, the nursing

students did not help significantly less often when another student was present than when they were alone. It might be expected that the nursing students would offer aid more often than the general students, but we did not find this to be the case. More nurses than students attempted to help the workman, but this effect was the result of the general students' reduced responding in the audience condition. When alone, nurses and general students helped equally as often.

Correlational analyses indicated that response latency was significantly correlated with the subjects' estimates of how tense they felt when the emergency took place. As a result, a 2 x 2 analysis of covariance was performed on the latency scores using the subjects' estimates of their tension as a covariate. A main effect for subjects' status was found to be significant. That is, the nursing students helped significantly faster than the general students, $F(1,51) = 7.24, p < .01$. Response latency was not influenced by the presence or absence of an audience when subject status was collapsed. However, students responded faster when alone than when in the presence of another, $t(51) = 2.19, p < .025$.

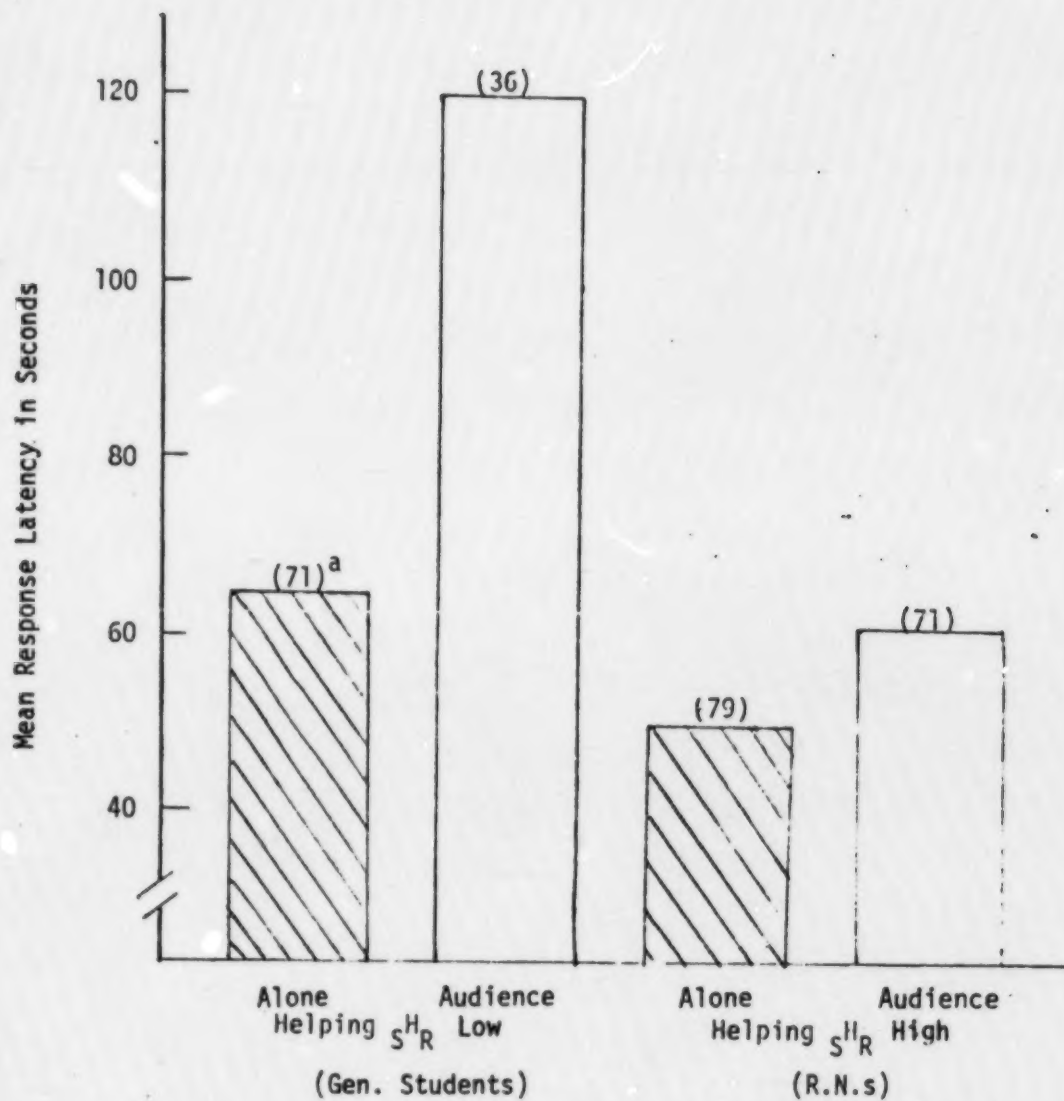
A number of recent articles have focused attention upon the role of deception in social psychological research. The line of argument advanced in these articles advocates the abandonment of deception. In our research several interesting results related to the issue of deception were found. Consistent with the work of Schwartz and Gottlieb, we found that the more the research was perceived as a learning experience, the more the subject said they enjoyed their experience in the study and would choose to

volunteer for another social psychology experiment. Subjects who reported learning more about the social sciences and themselves also said they enjoyed the experiment more and were more likely to volunteer for another experiment in the future. Despite having been deceived, 93% of the subjects said that the research was justified and 98% said that it should be continued. After our extensive debriefing no one regretted participating in the experiment, nor was anyone resentful about having been deceived. In fact, several students indicated that prior to the debriefing they were resentful about the deception, but the debriefing had eliminated these negative feelings.

Consistent with a considerable body of literature on the bystander effect, the presence of an audience in our study adversely effected the frequency and the latency of helping in the emergency. General students in the alone condition were more likely to offer aid and respond quicker than the students in the audience condition. Our results also indicate that there are limitations to the generality of the bystander effect. Consistent with the findings of Pantin and Carver, our results indicated that persons trained to respond to calls for help are not adversely effected by the presence of an audience. The results, however, did not support our expectation that for individuals with a helping response positioned high in their habit hierarchy, aiding in an emergency is facilitated. As a result, we cannot conclude that the general students' failure to respond in the audience condition was the result of the energization of responses which competed with the helping response.

One possible explanation for the nurses' failure to respond

more often in the audience condition may be that the frequency of helping for these subjects was at its theoretical limit. That is, given the general nature of the laboratory situation, the presence of only one observer, and the emergency's relative lack of ambiguity, it may be unrealistic to assume that the presence of another person would significantly effect the number of nurses who respond. Previous work indicates that helping is reduced when the emergency is somewhat ambiguous. Perhaps in such a situation where the overall level of responding is reduced below the theoretical ceiling, the presence of an audience might then evidence its facilitative effect. Future work in our laboratory is contemplated to address this issue.



^a Percent helping (n = 14)

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